

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method of processing a stereo signal obtained from an encoder, which encoder encodes an N-channel audio signal into left and right signals (L_0 ; R_0) and spatial parameters (P), the method comprising:
[[-]] processing said left and right signals in order to provide processed signals (L_{0w} ; R_{0w}), in which said processing is controlled in dependence of said spatial parameters (P).
2. (original) The method of claim 1, wherein said processing is controlled by a first parameter (w_l ; w_r) for each of said left and right signals, said first parameter being dependent on the spatial parameters (P).
3. (original) The method of claim 2, wherein said first parameter (w_l ; w_r) is a function of time and/or frequency.
4. (Currently Amended) The method of claim 1~~2~~, wherein said processing comprises filtering at least one of said left and right signals with a transfer function which depends on the spatial parameters (P).

5. (Currently Amended) The method of claim 1, wherein said processing comprises:

[[-]] adding a first, second and third signal in order to obtain said processed channel signals (L_{0w} ; R_{0w}), in which the first signal includes the stereo signal modified by a first transfer function ($L_0 * H_A$; $R_0 * H_F$), the second signal includes the stereo signal of the same one channel modified by a second transfer function ($L_0 * H_B$; $R_0 * H_E$), and the third signal includes the stereo signal of the other channel modified by a third transfer function ($R_0 * H_D$; $L_0 * H_C$).

6. (original) The method of claim 5, wherein said second transfer function (H_B ; H_E) comprises a multiplication with said first parameter (w_l ; w_r) followed by multiplication with a first filter function (H_1 ; H_4).

7. (original) The method of claim 5, wherein said first transfer function (H_A ; H_F) comprises a multiplication with a second parameter.

8. (original) The method of claim 5, wherein said first transfer function (H_A ; H_F) comprises a multiplication with a second parameter in which said first parameter is a function of said second parameter.

9. (Previously Presented) The method of claim 5, wherein said third transfer function (H_1 ; H_D) comprises a multiplication of the left or right signal (L_0 ; R_0) with said first parameter (w_l ; w_r) followed by a second filter function (H_2 ; H_3).

10. (Previously Presented) The method of claim 6, wherein said filter functions (H_1 , H_2 , H_3 , H_4) are time-invariant.

11. (Previously Presented) The method of claim 1, wherein said signals are described by the equation:

$$\begin{bmatrix} L_{Ow} \\ R_{Ow} \end{bmatrix} = H \begin{bmatrix} L_O \\ R_O \end{bmatrix}$$

in which the a transfer function matrix (H) is a function of the spatial parameters (P).

12. (Currently Amended) The method of claim 11, wherein said transfer function matrix (H) is described by the equation:

$$H = \begin{bmatrix} (1-w_l)^p + (w_l)^p H_1 & (w_r)^p H_3 \\ (w_l)^p H_2 & (1-w_r)^p + (w_r)^p H_4 \end{bmatrix}$$

with wherein "a" being is a constant, and H_1 , H_2 , H_3 , H_4 are filter functions.

13. (Previously Presented) The method of claim 11, wherein said filter functions (H_1, H_2, H_3, H_4) and parameters (w_l, w_r) are selected so that the transfer function matrix (H) is invertible.

14. (Previously Presented) A method of claim 1, wherein said spatial parameters (P) contain information describing signal levels of the N-channel signal.

15. (Currently Amended) A device for processing a stereo signal obtained from an encoder, which encoder encodes an N-channel audio signal into left and right signals ($L_0; R_0$) and spatial parameters (P), the device comprising:

[[-]] a post-processor ~~45~~ for post-processing said left and right signals in order to provide processed signals ($L_{0w}; R_{0w}$), in which said post-processing is controlled in dependence of said spatial parameters (P).

16. (Currently Amended) An encoder apparatus comprising:

[[-]] an encoder ~~42~~ for encoding an N-channel audio signal into left and right signals ($L_0; R_0$) and spatial parameters (P); and

[[-]] a device ~~45~~ according to claim 15, for processing said left and right signals ($L_0; R_0$) in dependence of said spatial parameters (P).

17. (Previously Presented) A method for processing a stereo signal comprising left and right signals (L_{0w} ; R_{0w}), the method comprising inverting the processing in accordance with the method of claim 1.

18. (Previously Presented) A device (7) for processing a stereo signal comprising left and right signals (L_{0w} ; R_{0w}), the device comprising means for inverting the processing in accordance with the method of claim 1.

19. (Currently Amended) A decoder apparatus comprising:

[[-]] a device ~~(7)~~ according to claim 18 for processing a stereo signal comprising left and right signals (L_{0w} ; R_{0w}); and

[[-]] a decoder for decoding the processed stereo signals (L_0 ; R_0) into an N-channel audio signal.

20. (Currently Amended) An audio system ~~(1)~~ comprising:

an encoder apparatus having an encoder ~~(2)~~ for encoding an N-channel audio signal into left and right signals (L_0 ; R_0) and

spatial parameters (P), and a device ~~(5)~~ for post-processing said left and right signals (L_0 ; R_0) in order to provide processed

signals (L_{0w} ; R_{0w}), said post-processing being controlled in dependence on said spatial parameters (P); and

a decoder apparatus for decoding said processed signals (L_{0w} ; R_{0w}), said decoder apparatus having a device for processing a

stereo signal comprising left and right signals (L_{0W} ; R_{0W}), the device comprising means for inverting the post-processing performed in the encoder apparatus in order to provide stereo signals (L_0 ; R_0), and a decoder for decoding the stereo signals (L_0 ; R_0) into an N-channel audio signal.